

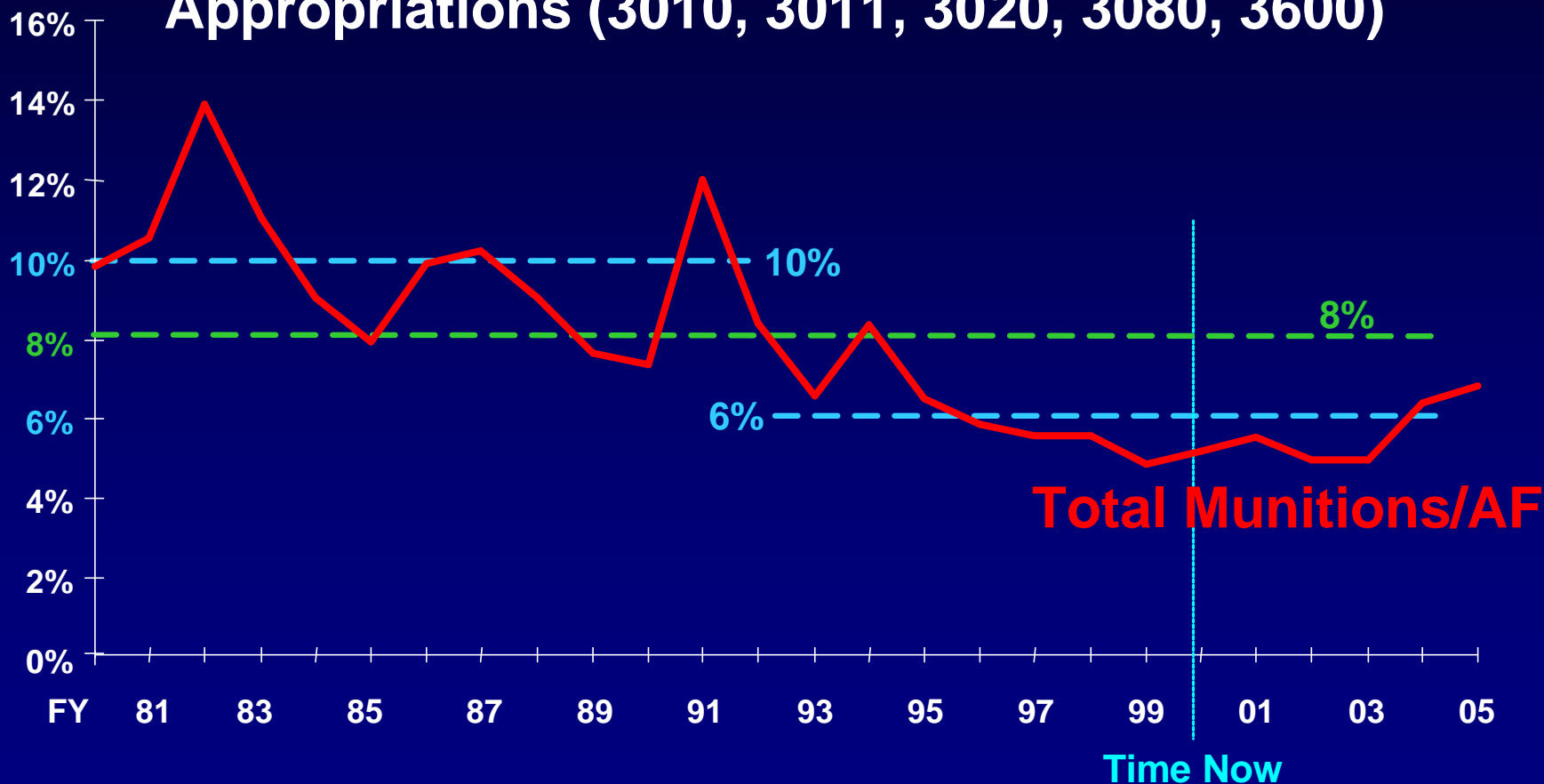
# **Air Armament Summit Executive Summary**

**Col Rosanne Bailey**  
**Armament Product Group Manager**



# Munitions Funding vs AF Investment

## Munitions Funding as a Percentage of AF Investment Appropriations (3010, 3011, 3020, 3080, 3600)



***Weapon Investment At All Time Low***



*“if we want to be prepared for whatever lies around the next corner” we need “a balanced set of capabilities that can preserve our **deterrence** of nuclear war, that can remain dominant so as to **deter** large scale conventional war, and that can evolve gracefully to **deal with** those asymmetric but lesser threats to our nation’s interests that are sure to arise. Can we afford less?”*

**General Richard E. Hawley, ACC/CC, 2/25/98**



# Air Force Long Range Planning



- CSAF's Vision Under Review

- Changes Our Focus
- Prebrief at Corona Fall
- Due Out in Feb

## Current Themes:

- Long Range Plan

Integration of Air & Space

Airman of Tomorrow

Commitment to Directives Statements

Increased Efficiency

## New Themes:

Expeditionary Ethos

Experimentation

Space Integration

Future Total Force

Information Operations

-- Focuses Into Action

## DIRECTIVE STATEMENTS

## Air Armament Summits

## Provide Opportunity for

## "Bottom Up" Build to

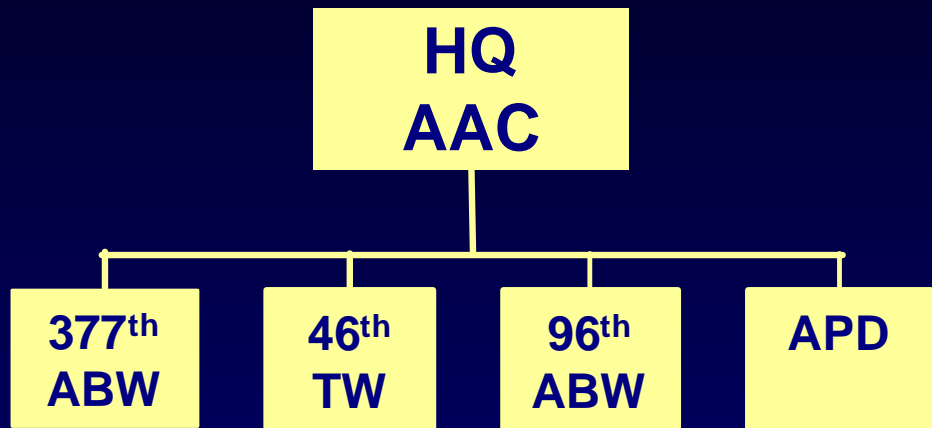
## AF Long Range Plan

1. Integrating Air and Space
2. Future Space Operations
3. Ballistic and Cruise Missile Defense
4. Global Awareness/C2 (BM/C2)
5. Unmanned Aerial Vehicles (UAVs)
6. Presence/Power Projection
7. Nuclear Weapons, Planning & Support
8. Information Operations
9. Force Generation
10. Career Patterns
11. Force Structure
12. Acquisition Management
13. Test and Evaluation Infrastructure
14. Sustainment
15. Basing
16. Innovation





# Air Armament Center Creation



*Consolidate Weapons Management Into a Center of Excellence*

- Development
- Acquisition
- Testing
- Sustainment



*Cradle-to-Grave Management of All Air-Delivered Weapons*



- Air Force, Army, Navy and Other Elements of the DoD
  - Industry
    - Academia
      - Summit Products





# 1999 Air Armament Summit

## Day 1- Key Speakers



AIR ARMAMENT SUMMIT

Maj Gen Mike Kostelnik  
OVERVIEW OF AAC

Current Weapons Development  
Future Opportunities  
AIR ARMAMENT BASELINE

Maj Gen (R) Larry Henry  
Requirements Perspective

Gen (R) Larry Skantzis  
War

Science &

Advanced Weapons

Gen (R) Larry Skantzis  
Strategy  
ADVANCED WEAPONS: Plan"

HAT MIGHT THE FUTURE HOLD

Gen (R) Larry Skantzis - AFSOC

Gen (R) Larry Skantzis - AFSOC

ARMAMENT ROADMAPS



ARMAMENT ROADMAPS

WI





# 1999 Air Armament Summit

## Day 1- Panel Discussions



UNCLASSIFIED FOUO

### Air Armament Summit



Col Steve Pitotti

### GLOBAL ENVIRONMENT, THREAT AND MILITARY ENVIRONMENT

- \$17B Shortfall in Outyears (0.72% AF Budget)

Col Gerry Daugherty

Global Competitor 2010, Global in 2015

### S&T: REALM OF THE POSSIBLE

- Technology Based Alternatives
- Superiority is for Sale
- Leaner, More Lethal for the Future

Col Dave Honeywell

### RESOURCES

Generation After Next Weapons

- Munitions Development Seriously Constrained in FYDP
- Lack of Coherent Funding Review Process
- Kosovo Validates Future Development Needs

Unclassified - For Official Use Only

### S&T Panel

### REALM of the Possible



Pan

### Resources Panel

Panel Chairman: Col Dave Honeywell  
SAF/AQPB



Unclassified - For Official Use Only

Chart 1 - S &



# 1999 Air Armament Summit

## Day 2 - Industry Brief/Executive Session



### Industry Briefs

- Industry Perspective on the Future of Air Armaments

### Executive Session

- Government Only
- Approve Annual Summit Process
- Approve Roadmaps
- Target % of TOA for Investment
- Strategy for FY02-07 POM
- Identify Policy Issues
- Theme for Next Year's Summit







# Weapons Roadmap



## Near Term



## Mid Term

## Far Term



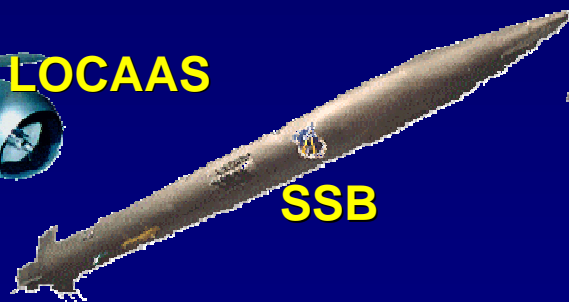
# Miniaturized Munitions



- Capitalizing on Small Smart Bomb and LOCAAS Laboratory Efforts
- AoA on Schedule -- Mid-term Briefing to AFROC Nov 99
- ACC's Modernization Planning Process (MPP) Ongoing
- Fixed and Relocatable Targets



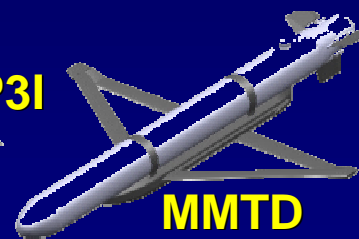
**LOCAAS**



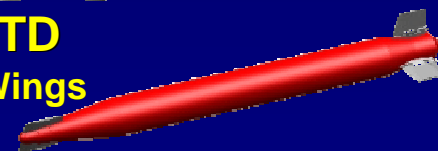
**SSB**



**BAT P3I**



**MMTD  
with Wings**



**MMTD**



# Weapons Roadmap



## Near Term



## Mid Term



## Far Term



# Weaponized UAV Special Missions



## Miniaturized Munitions



## Maturing Airframes



Technology  
Push

Requirements  
Pull

## High-risk Missions

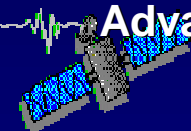


Preemptive  
Destruction

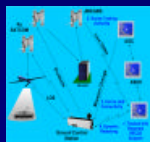


Reactive  
Suppression

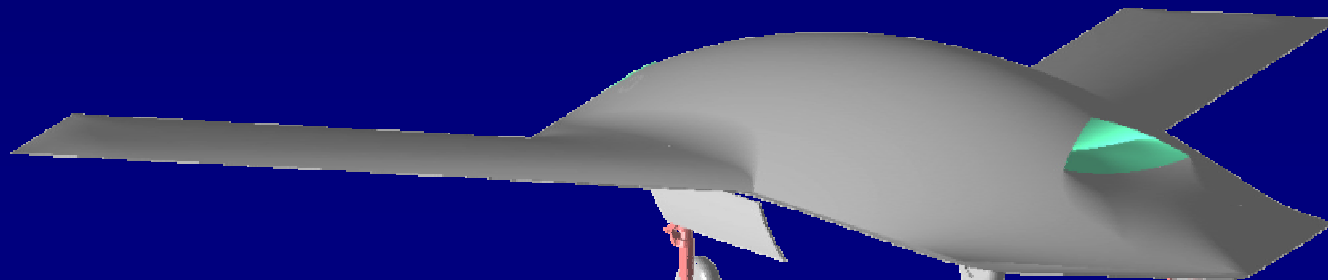
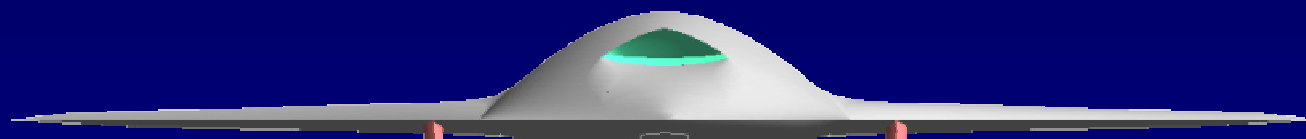
## Precision Guidance Advances



## C4I Advances



## Off-board Sensors







# Weapons Roadmap



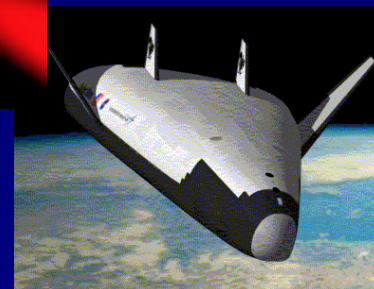
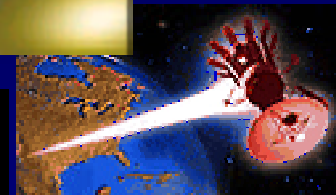
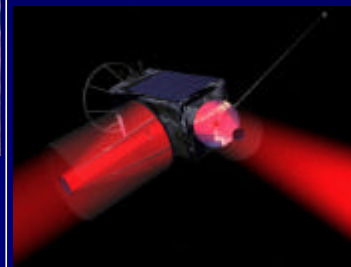
## Near Term



## Mid Term



## Far Term

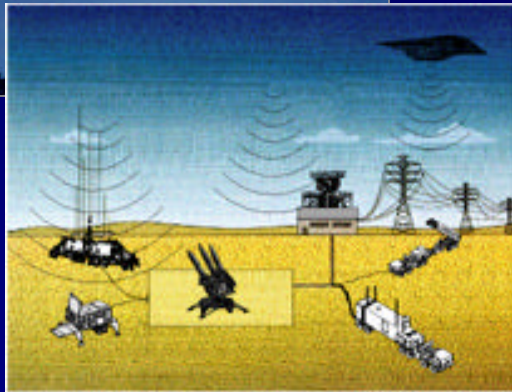
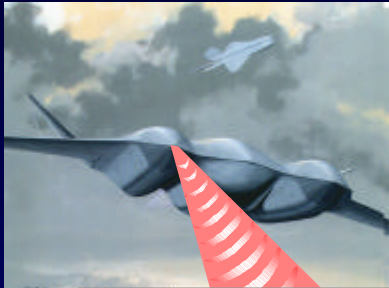






# Directed Energy

## New AAC DE Planning Directorate at Kirtland: Technical Expertise at Kirtland Acquisition and Test Expertise at Eglin Assess Emerging Technologies From AFRL



- Planning Function to Partner with Labs
- Initial Management of ACTDs
- AAC Cadre for Developmental Planning
  - LtC + 4 Engineers to Facilitate Transfer From Lab To SPO Complete in January
- Technology Push of DE Weaponization

*Capitalize on Emerging Directed Energy Technologies*



# Directed Energy

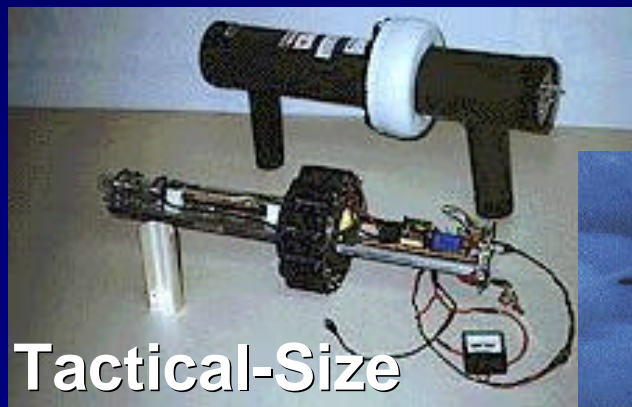


## A Vision for Directed Energy: Technology Demonstrators



Provide Risk Reduction for UCAV,  
Tactical Aircraft and Other  
Applications

### Airborne Laser



Tactical-Size



Mid-Size



# Weapons Roadmap



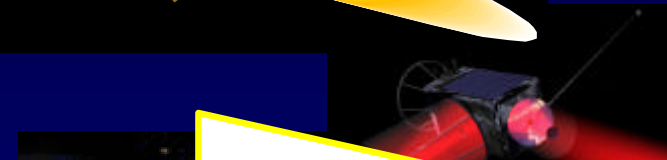
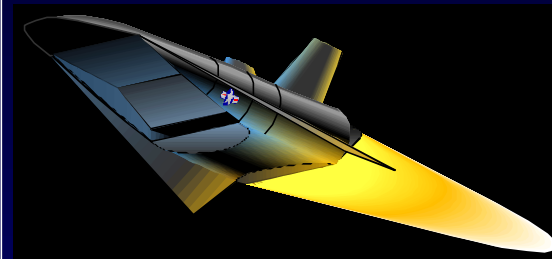
## Near Term



## Mid Term



## Far Term



**Armament Summit Provides Annual Update**







# Kosovo Lessons Learned

## Changing Environment



### Vietnam

- Multiple Aircraft
- Multiple Bombs

### Desert Storm

- Single Aircraft
- Multiple Bombs



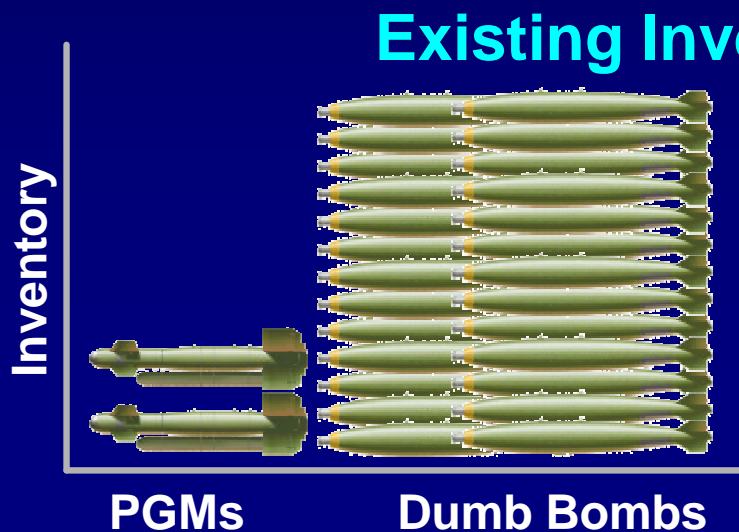
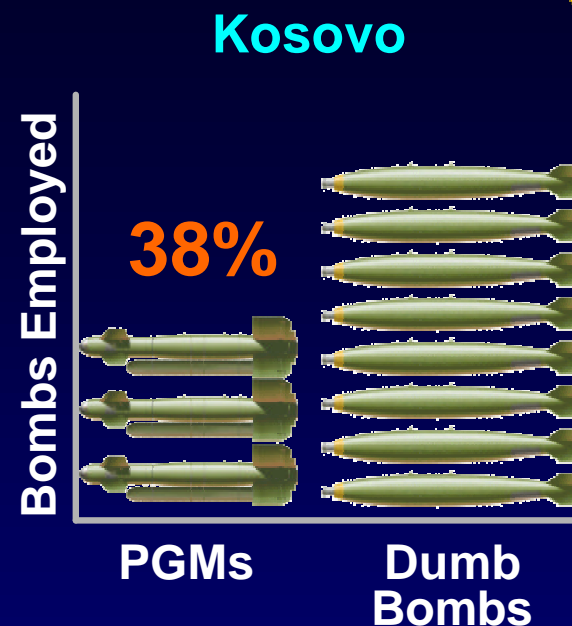
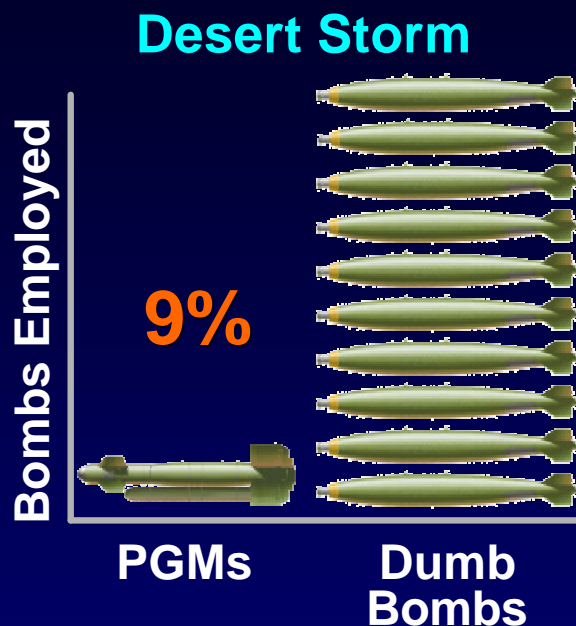
### Kosovo

- Single Aircraft
- Fewer Bombs
- Less Collateral Damage



# Kosovo Lessons Learned

## Comparison



**Inventory Constrained  
PGM Operational Use**

**Current Inventory  
Suboptimal for  
Warfighting Needs!**





# Kosovo Lessons Learned

## Conduct Analyses of Recent Conflicts



- **Questions to Ask:**

- What Weapons Did We Plan to Use?
- What Weapons Have We Actually Used?
- How Well Did Weapons Perform?
- What Are the Lessons Learned?
- How Can We Adapt Existing Inventory?
- What Other Things Do We Need?
- What Opportunities Are Available?



- **Shape/Right Size Existing Inventory:**

- Sustain
- Replenish
- Acquire Additional
- Modify
- Dispose

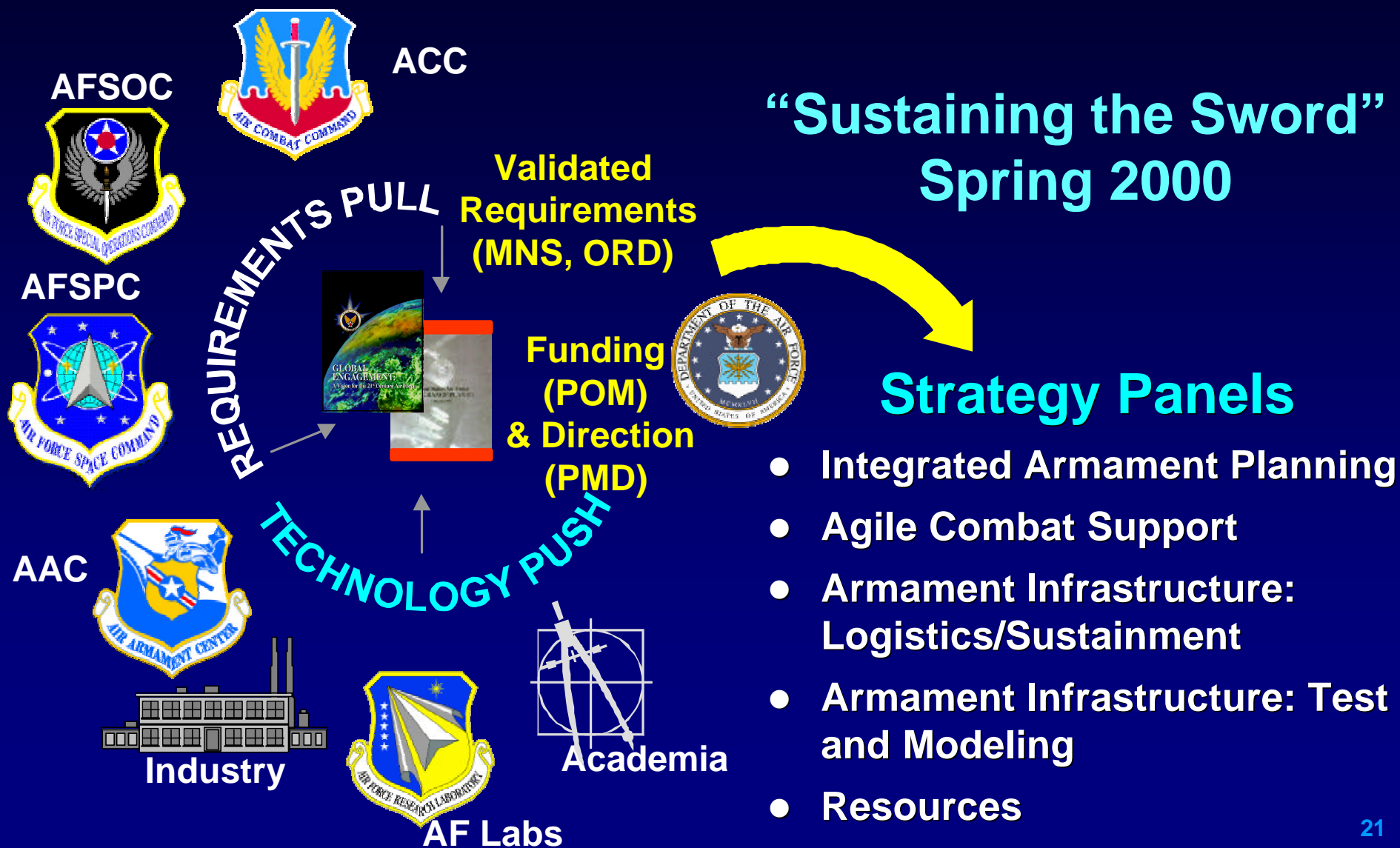


- **Plan For Future Inventory: MMs, Weaponized UAVs, DE**



# 2000 Air Armament Summit

## 2nd Annual Summit





# 2000 Air Armament Summit

## 2nd Annual Summit--Sustaining the Sword



### Integrated Armament Planning

- Kosovo Lessons Learned
- Modernization Analyses
- Weapons Roadmap Extension
- Inventory Management

### Resources

- Financial Requirements
- Inventory Support Costs
- ACS Cost Estimates
- Test and Training Roadmaps

### Armament Infrastructure: Test and Modeling

- Virtual Environments
- Simulation-Based Acq
- Modernizing Test Ranges and Targets
- Survivability
- Armament Aging
- Workforce Shaping
- Training

### Agile Combat Support

- eAF Issues
- Air Base Support Infrastructure
  - Civil Engineering (CE)
  - Surgeon General (SG)
  - Base Communication (SC)
  - Security Protection (SP)
  - Services (SV)

### Armament Infrastructure: Logistics/Sustainment

- Reduced Logistics Footprint
- Sustainment & Deployment Architectures
- Support Equipment
- Surveillance Testing
- Inventory Tracking
- Nuclear Support

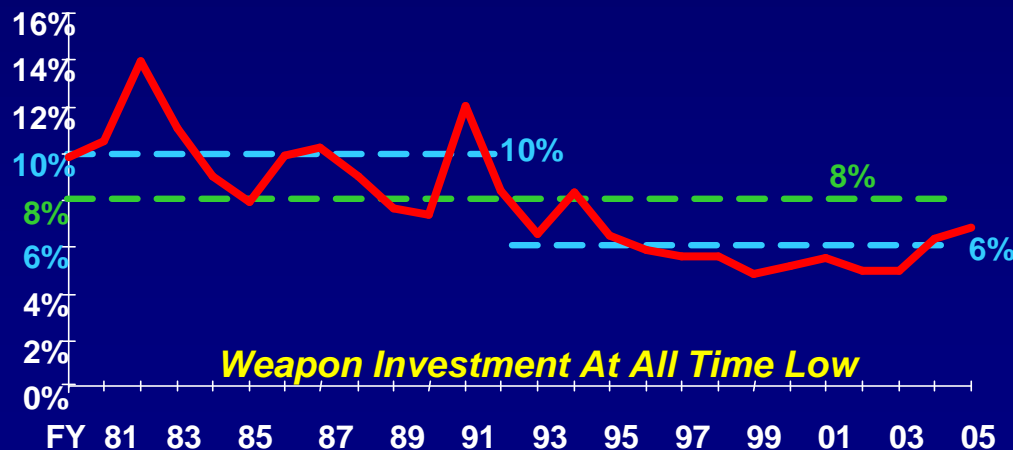




# Commander's Perspective



- 1<sup>st</sup> Air Armament Summit -- A *SIGNATURE* Event
  - Emergence of New Product Center
- Summit 1999 Recognized Opportunities & Challenges
  - Real World Does Not
- Summit 2000 Focus: Sustainment, Inventory, Infrastructure
  - Flexible Employment
  - What Do We Have?
  - Resources Tight, but
  - What Do We Need?
  - Improvements
  - How Do We Get There?







**Into the New Millennium with Force and Fury!**